Name: ..... Class: .....

Task 1

All web addresses (URLs) have a corresponding IP address, held on a domain name server (DNS).
Use a website such as https://www.iplocation.net/ip-lookup to find out the missing IP addresses and domain names, and where the domain name server is located.

Domain name or Host name	IP address	Location
www.google.co.uk		
(Your school website)		
www.amazon.co.uk		
nhm.ac.uk		
Another website of your choice		
Your school's public IP address (search 'what is my IP address')		
Your computer's internal network IP address		

Task 2

To retrieve data from a web server, the packets of data must often travel through many routers.

It is possible to trace the routers that packets go through to reach an IP address or domain name. This is known as a traceroute.

Go to: https://www.uptrends.com/tools/traceroute or search for another traceroute service. If you have access to a command prompt then you can carry this out from your computer with the command *tracert* (Windows) or *traceroute* (Linux/Mac).

Find the route from London (if using the website) or your computer (if using the command prompt) to the following domain names.

Domain name or Host name	IP addresses	Locations
www.google.co.uk		
(Your school website)		

*Be aware that some routers or servers may not respond to requests. This usually indicates that a firewall is in place.

Extension: Find the locations of the IP addresses on one route you have found using: https://iplocation.com/

Task 3

	True	False
Every device in the world connected to the Internet has an IP address		
All the packets in a data transmission are the same length		
Packets travel by different routes and may arrive out of sequence at their destination		
A protocol is an error checking procedure		
A PC must connect to a router to access the Internet		
The DNS server translates a website address into the MAC address of the host computer		
There is only one DNS server, and it holds all the website addresses in the world		
The job of a router is to read the address on a data packet and send it on its way via the best route to its destination		